

DRAFT

DEPT.

Best Available Copy

Outline of things to consider for patent application of novel type I cytokine receptors

We have identified partial cDNA sequences for three new members of the type I cytokine receptor family. These receptors are characterized by a conserved cysteine pattern and an amino acid motif containing WSXWS. Members of this family include the receptors for TPO, EPO, Growth Hormone, Prolactin, IL-4, IL-7, IL-9, IL-2, IL-5, IL-3, GM-CSF, IL-6, CNTF, G-CSF and Leukemia inhibitory factor.

The main utility for these sequences would be to facilitate the cloning of the unknown ligands for the receptors. The receptors themselves (ie. soluble forms) might be potential therapeutics as well.

There are at least three ways the receptor sequence can be utilized to clone the ligands:

- a). Make receptor dependent cell lines (as was done in the [REDACTED] project) for use in an expression cloning project.
- b). Soluble forms of the receptor can be labeled and used as probes in an expression cloning system.
- c). The receptor could be attached to various columns or other supports and used to purify the ligand.

Patentable entities: (???????)

- a). The EST (expressed sequence tag) that allowed us to identify the partial sequence as novel member of the family. — *came from [REDACTED]*
- i). Allows us to clone the full length cDNA.
- b). The full length receptor encoding cDNA.
- c). Homologues of the cDNAs. It may be that murine versions of these receptors are necessary for ligand dependent cell line cloning.
- d). The ligands for the receptors.
- e). AIDS therapies. — *Discussed w/ Frank*

WHAT WE GOT:

- a). [REDACTED]
- b). [REDACTED]
- i). [REDACTED]
- ii). [REDACTED]
- c). [REDACTED]